expected under favorable circumstances and when not otherwise occupied to furnish eggs *three inches and upward* in length and of corresponding diameter. This looks like business, and here also is a hint in the way of a new industry. I was at one time slightly acquainted, with an old man, an alleged conchologist from the sunny land of France, of whom it was stated with much probability of truth, that he cooked common cowries in acid and bedeviled them in various ways, in the effort and hope to produce the beautiful Cypræa aurantia by an artificial process. His experiments were inspired not by scientific zeal but the lust of mammon. He did not succeed. His experiments rested on an imperfect ethical basis. But with the big bulimus as above, provided one could get enough to start the business and stock a small cochlearia or snail ranch, the business would be interesting scientifically and commercially and in no way *contra bona mores.* The proportions of the dividends compared to the profits of other kinds of business, might not be quite as large as the proportions of the big Bulimulus compared with the rest of his relatives.

But alas there are many incongruities and paradoxes in this world, and with this melancholy fact before us let us rest and find consolation, while dreaming of omelets and custards made of Bulimus eggs; and let us also in kindness overlook the infelicities of typographic errors and lapses of proof-readers.

R. E. C. S.

ON THE GENUS COROLLA DALL.

BY W. H. DALL.

In 1871 I was suddenly called from my studies at the Smithsonian Institution to take charge of an expedition for a reconnaissance survey of the Aleutian Islands, under the auspices of the U. S. Coast Survey. The molluscan material collected by me in the Nothern Pacific from 1865–'68 had been the object of much care and scrutiny. The types of all doubtful or supposed new species had been sent to Dr. P. P. Carpenter, then recognized as the chief expert on the shells of the N. W. Coast. He had held them without report for two years, but under the circumstances it was not possible to delay longer. They were hastily recalled, and that nearly four years of hardship and exploration might not seem entirely fruitless, the

most obviously new or interesting forms were made the subjects of brief diagnoses which were gathered into a paper for the American Journal of Conchology. This preliminary paper included a brief diagnosis of a remarkable Pteropod, of which the types are still extant in the National Museum, which was described (op. cit. vol. 7, pp. 137–8), under the name of *Corolla spectabilis* n. g. and sp., and supposed to have no shell. These animals caught in the N. Pacific, Lat. 42°50′, W. Lon. 147°25′, in the tow-net, were preserved alive for three days and carefully drawn to scale in water colors before being consigned to spirits for preservation. As they seemed lively and perfect the conclusion was natural that they were normally shelless. Subsequently, on my return to civilization in 1875, after much study I became convinced that these animals were more related to *Tiedmannia* but had lost their shell. The latter is gelatinous, slipper-shaped, and covered with small tubercles weighing several times as much as the animal, which is very slightly attached to it and is therefore detached with great facility. The genus *Gleba* Forskäl was similarly described from a detached animal.

In his report on the *Pteropoda* of the Challenger Expedition, Dr. Paul Pelseneer received from me copies of all my unpublished sketches and specimens of several of the species, though not of *Corolla spectabilis* as the jar containing the latter was temporarily inaccessible. A brief description of the shell was also sent. In his report on the Challenger Pteropods he combines with my sketch and diagnosis certain defective fragments collected by the Challenger party which appeared to him to belong to the genus *Gleba*, to which he accordingly referred *C. spectabilis;* the name *Corolla* naturally becoming in this way a synonym of *Gleba*.

But the "shell" of *Gleba* is of a totally different character from that of *Corolla*. It is almost flat, shallow and not slipper-shaped. The detached "shells" which I took in the tow-net about the time I collected the types of *Corolla* do not resemble *Gleba*, but are nearly identical with those possessed by *Cymbulia calceola* Verrill, an analogous Atlantic species. The reception, from the Fish Commission, of specimens of *C. calceola* and of specimens of *Corolla spectabilis*, with the shell, from the Santa Barbara Channel, California, leave no doubt of this. The soft parts of these two species also differ materially from those of *Gleba*, and *C. calceola* has therefore been made by Dr. Pelseneer the type of a new group which he has named *Cymbuliopsis* (Challenger Pteropods, *Thecosomata* p. 100, fig.

2, 1887), which also includes *C. rata* Q. & G. With the identification of the true shell of *Corolla*, this name becomes unnecessary, and *Corolla* resumes the generic rank I assigned to it, with the addition of a second species, *Corolla calceola* Verrill (sp.) from the eastern coast of United States; *Cymbuliopsis* becoming in its turn a synonym. The details of structure I hope to publish later with illustrations; the object of this note is merely the rectification of the synonymy. In a general way I should be indisposed to claim priority for a name which was imperfectly characterized in publication, but Dr. Pelseneer has set the example by adopting *Gleba*, which stands in exactly the same predicament and as it is really the best plan (except in very glaring cases) to take the first identifiable name, I follow his example.

THE SHELL-BEARING MOLLUSCA OF RHODE ISLAND.

BY HORACE F. CARPENTER.

173.—*Sphærium sulcatum* Lam., 1818.

This, the largest species of the genus in America, is widely distributed throughout New England, and the Middle and Western States and Canada, and inhabits rivers and large ponds. It presents much variation in size and color. It has been known best in this country by the name of Cyclas similis Say, but Lamarck's name has priority. The animal is white with light orange siphons. The shell is transversely oval, nearly equilateral, very light for its size: valves convex, broad across the beaks, which are but slightly elevated above the general curve of the shell; interior bluish; exterior dark chestnut; surface concentrically wrinkled with strongly-raised lines, with a broader band corresponding to each year's growth. Length, $\frac{7}{10}$, heighth, $\frac{1}{2}$, breadth, $\frac{1}{3}$, inch. The young shells do not resemble the adults, and might well be mistaken for another species; they are thin and compressed, with both ends truncated and resemble rhomboideum; in fact most of the specimens in cabinets labeled rhomboideum are simply the young shells of sulcatum. The color of the young shells is lemon-yellow, but as they grow older a dark shade appears at the beaks and gradually spreads downwards until it covers the entire surface. In intermediate stages there is a yellow zone on the lower margin. They are found in R.